

REMARKS

Claims 1-13 and 15-25 are pending in the application upon entry of the amendments and new claims. Claim 14 has been canceled without prejudice or disclaimer. Claims 1-6, 9-13, and 15-20 have been amended for consistency and to better describe certain aspects of the invention. Claims 23-25 have been added to further describe the invention. Favorable reconsideration in light of the amendments, the new claims, the Terminal Disclaimer, and the remarks which follow is respectfully requested.

The Objections to the Drawings

The drawings have been objected to. It is respectfully submitted that these objections should be withdrawn for at least the following reasons. Figures 2 and 3 do not describe prior art.

Figures 2 and 3 describe graphs showing the type of metal deposit at specific current densities. The data shown in the graphs is obtained using a conventional electroplating bath, but the bath is not illustrated or described in Figures 2 and 3. What is shown in Figures 2 and 3 is the inventive analysis that was generated by the inventors. This analysis is not prior art. Withdrawal of these objections is respectfully requested.

The Objections to the Specification and Claims

The specification and claims have been objected to. The specification and claims have been amended as suggested by the Examiner to, for example, cure any informalities. Withdrawal of these objections is respectfully requested.

The Indefiniteness Rejection

Claims 2, 3, 11-15, 17, 18, and 20 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the

subject matter which applicant regards as the invention. Claims 2, 3, 11-13, 15, 17, 18, and 20 have been amended as suggested by the Examiner.

The Double Patenting Rejection

Claims 1-22 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-23 of co-pending Application No. 10/772,595. The subject application and Application No. 10/772,595 are owned by the same entity, Taskem, Inc. (see Reel/Frame 014966/0503 for Application No. 10/772,595). The enclosed Terminal Disclaimer renders this rejection moot.

The Rejection Under 35 U.S.C. §102(b)

Claims 1-3 stand rejected under 35 U.S.C. §102(b) as being anticipated by JP 10-245693 (hereinafter "JP '693"). Independent claim 1 has been amended to recite an amine-borane compound as a Boron source and an acetylenic brightener. It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. JP '693 does not describe, teach or suggest each and every feature of the subject claims.

To establish anticipation, each and every claim feature must be disclosed in a single cited art document. JP '693 relates to forming a nickel alloy by electroplating. JP '693 requires a N-heterocyclic quaternary ammonium salt as a brightener. In JP '693, there is no disclosure, teaching or suggestion to employ an amine-borane compound as a Boron source and an acetylenic brightener required in claim 1. Amine-borane compounds form borane anions in an electroplating bath. Unlike in the case of ionic boron, the borane anions force reduction of metal on the cathode while at the same time being incorporated into the alloy matrix. Ionic boron is, in contrast, part of a conductivity salt that is not incorporated into the alloy matrix like boron originated from an amine-borane compound. In this connection, ionic boron is not equivalent with amine-boranes. Efficient incorporation of boron into the alloy matrix is a significant advantage of the

claims. Since JP '693 fails to disclose, teach, or suggest all of the claimed features, JP '693 cannot anticipate claims 1-3 and furthermore cannot render claims 1-3 obvious.

The Rejection Under 35 U.S.C. §103(a)

I. Claims 4-8 have been rejected under 35 U.S.C. § 103(a) over JP '693 in view of Hui (US Patent No. 6,372,118) and Caballero (US Patent No. 5,213,907). Independent claim 1 from which claims 4-8 depend has been amended to recite an amine-borane compound as a Boron source and an acetylenic brightener. Claim 4 has been amended to distinguish from JP '693 by changing the amounts of nickel, cobalt, and boron in the electroplating bath. The amendment of claim 4 is supported by, for example, the first full paragraph of page 4.

To establish a *prima facie* case of obviousness, three basic criteria must be shown. First, there must be some suggestion or motivation, either in the cited art or in the knowledge generally available to one of ordinary skill in the art, to modify the cited art or to combine the cited art. Second, there must be a reasonable expectation of success. Finally, the cited art must teach or suggest all the claim features. See MPEP 706.02(j).

JP '693 does not teach or suggest the claimed features of independent claim 1 as noted *supra*. Hui fails to teach employing an amine-borane compound as a Boron source. Caballero also fails to teach employing an amine-borane compound as a Boron source and an acetylenic brightener. Hui and Caballero, independently or in combination, fail to make up for the aforementioned deficiencies of JP '693. Accordingly, this rejection should be withdrawn.

II. Claims 9-13 and 15 have been rejected under 35 U.S.C. § 103(a) over JP '693. Independent claim 9 has been amended to recite an amine-borane compound as a Boron source and an acetylenic brightener. In JP '693, there is no disclosure, teaching or suggestion to employ an amine-borane compound as a Boron source and an acetylenic brightener required in claim 9. Amine-borane compounds form borane

anions in an electroplating bath. Unlike in the case of ionic boron, the borane anions force reduction of metal on the cathode while at the same time being incorporated into the alloy matrix. Ionic boron is, in contrast, a conductivity that is not incorporated into the alloy matrix like boron originated from an amine-borane compound. In this connection, ionic boron is not equivalent with amine-boranes. Efficient incorporation of boron into the alloy matrix is a significant advantage of the claims. Since JP '693 fails to disclose, teach or suggest all of the claimed features, JP '693 cannot render claims 9-13 and 15 obvious. Accordingly, this rejection should be withdrawn.

III. Claim 14 has been rejected under 35 U.S.C. § 103(a) over JP '693 and in view of Hui. Claim 14 has been canceled without prejudice or disclaimer.

IV. Claims 16-22 have been rejected under 35 U.S.C. § 103(a) over JP '693. Independent claim 16 has been amended to recite an amine-borane compound as a Boron source and an acetylenic brightener. In JP '693, there is no disclosure, teaching or suggestion to employ an amine-borane compound as a Boron source and an acetylenic brightener required in claim 16. Amine-borane compounds form borane anions in an electroplating bath. Unlike in the case of ionic boron, the borane anions force reduction of metal on the cathode while at the same time being incorporated into the alloy matrix. Ionic boron is, in contrast, a conductivity that is not incorporated into the alloy matrix like boron originated from an amine-borane compound. In this connection, ionic boron is not equivalent with amine-boranes. Efficient incorporation of boron into the alloy matrix is a significant advantage of the claims. Since JP '693 fails to disclose, teach or suggest all of the claimed features, JP '693 cannot render claims 16-22 obvious. Accordingly, this rejection should be withdrawn.

Petition for Extension of Time

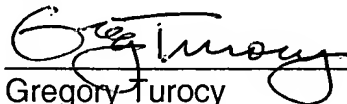
A request for a one month extension of time is hereby made (small entity status has been established). A Credit Card charge form is enclosed herewith to pay the petition fees.

Should the Examiner believe that a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

In the event any fees are due in connection with the filing of this document, the Commissioner is authorized to charge those fees to our Deposit Account No. 50-1063.

Respectfully submitted,

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